

REMARKS

The Examiner is thanked for the thorough examination of this application. The Office Action, however, tentatively rejected all claims 1-12. In this response, claims 1 and 9 have been amended. All claims 1-12 remain pending in this application.

Support for amended claim 1 can be found at least on pages 6-7 of the application. Specifically, the limitation "a plurality of longitudinally extending data lines and a plurality of metallic light shield layers on part of the first insulating layer are formed without contacting source/drain electrode" can be found on page 6, lines 7-11. Accordingly, no new matter has been added to the applications by the amendment.

Rejections Under 35 U.S.C. 102(b) of Claims 1-4 and 6-8

Claims 1-4 and 6-8 were tentatively rejected under 35 U.S.C. 102(b) as allegedly unpatentable over Yamazaki et al (USPN 5933205, hereinafter "Yamazaki"). Claim 1 is an independent claim, from which claims 2-8 depend. Applicant asserts that claim 1 is patentable for at least the reasons discussed below, and therefore for at least the same reasons claims 2-8 are patentable as well.

The Office Action alleges that "Yamazaki discloses the steps of claim 1 comprising performing a photolithography procedure using a photomask to **form a plurality of longitudinally extending data lines and a plurality of metallic light shield layers on part of the first insulating layer.**"

As amended, claim 1 recites:

1. A method of fabricating an LCD device, comprising the steps of:
 - providing a substrate;
 - forming a plurality of transversely extending gate lines on the substrate;
 - forming a first insulating layer on the substrate and the gate lines;
 - performing a photolithography procedure using a photomask to *form a plurality of longitudinally extending data lines and a plurality of metallic light shield layers on part of the first insulating layer without contacting source/drain electrode*, wherein the metallic light shield layers are located on both sides of the data line;
 - forming a second insulating layer on the metallic light shield layers and the data lines; and

forming transparent conductive layers on part of the second insulating layer.

(Emphasis Added)

Thus, as expressly recited in amended claim 1, the claimed method of fabricating an LCD device comprises forming a plurality of longitudinally extending data lines and a plurality of metallic light shield layers on part of the first insulating layer without contacting source/drain electrode.

In contrast, Yamazaki explicitly discloses (in column 8, lines 6-13, and FIG. 7(I)):

*"The silicon oxide film can be formed by LPCVD, photo-CVD, or by atmospheric pressure CVD, at a thickness of, for example, 0.2 to 0.6 μm , and thereafter, **an opening 79 for electrode was formed using a fifth photomask P5.** In addition, after aluminum was formed by sputtering at a thickness of 0.3 μm thereupon while **a lead 74 as well as contacts 73, 75 were manufactured using a sixth photomask P6.**"*

Referring to FIG. 7(I) in Yamazaki, a lead 74 as well as contacts 73, 75 were manufactured using a sixth photomask P6, wherein a lead 74 and contacts 73, 75 directly contact source/drain regions, which were laser-annealed using XeCl excimer laser while a laser doping was carried out to the activation layer, as stated in column 7, lines 3-5. Therefore, it is cleared that Yamazaki does not disclose forming a plurality of longitudinally extending data lines and a plurality of metallic light shield layers on part of the first insulating layer without contacting source/drain electrode, as recited in claim 1. For at least this reason, reconsideration and withdrawal of this rejection is respectfully requested.

Hence it is respectfully asserted that amended claim 1 is allowable over the cited reference (Yamazaki et al). Insofar as claims 2-8 depend from amended claim 1, these claims are also allowable at least by virtue of their dependency.

Rejections Under 35 U.S.C. 103(a) of Claims 5, 9-12

Claims 5, 9-12 were tentatively rejected under 35 U.S.C. 103(a) as allegedly unpatentable over Yamazaki et al (USPN 5933205) in view of Rho et al (USPN 6243146, hereinafter "Rho"). Dependent claim 5 is patentable for at least the reason discuss above in connection with claim 1. Claim 9 is an

independent claim, from which claims 10-12 individually depend. Applicant asserts that claim 9 is patentable for at least the reasons discussed below, and therefore for at least the same reasons claims 10-12 are patentable.

The Office Action alleges that "Yamazaki discloses the steps of claim 1 comprising performing a photolithography procedure using a photomask to form a plurality of longitudinally extending data lines and a plurality of metallic light shield layers on part of the first insulating layer"

In contrast, amended claim 9 recites:

9. A method of fabricating an LCD device, comprising the steps of:
providing a glass substrate;
forming a plurality of transversely expanding extending gate lines on the glass substrate;
forming a first silicon oxide (SiO_x) layer on the glass substrate and the gate lines;
performing a photolithography procedure using a photomask to form *a plurality of longitudinally extending data lines and a plurality of metallic light shield layers on part of the first silicon oxide layer without contacting source/drain electrode*, wherein the metallic light shield layers are located on both sides of the data line;
forming a second silicon oxide (SiO_x) layer on the metallic light shield layers and the data lines;
forming conductive plugs penetrating the second silicon oxide layer; and
forming transparent conductive layers on part of the second silicon oxide layer, wherein the metallic light shield layers electrically connect the transparent conductive layers by means of the conductive plugs.

(Emphasis Added)

As recited above, the method of fabricating an LCD device recited in claim 9 explicitly comprises forming a plurality of longitudinally extending data lines and a plurality of metallic light shield layers on part of the first silicon oxide layer without contacting source/drain electrode.

In contrast, Yamazaki does not disclose forming a plurality of longitudinally extending data lines and a plurality of metallic light shield layers on part of the first insulating layer without contacting source/drain electrode, as recited in claim 1. Therefore, as stated above, the above-mentioned response to claims 1 and 9 distinctly differentiate from cited articles. Insofar as claim 5 and claims 10-12 separately depend from amended claims 1 and 9, these claims are also allowable at least by virtue of their dependency. Therefore,

reconsideration of the above rejection over claims 5, 9-12 is hereby respectfully requested.

Conclusion

For the reasons as described above, all pending claims are now in condition for allowance. Withdrawal of the rejections and allowance of all claims, as now amended, are respectfully requested. Applicant has made every effort to place the present application in condition for allowance. It is therefore earnestly requested that the present application, as a whole, receive favorable consideration and that all of the claims be allowed in their present form.

Should Examiner feel that further discussion of the application and the Amendment is conducive to prosecution and allowance thereof, please do not hesitate to contact the undersigned at the address and telephone listed below.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,

By:


Daniel R. McClure, Reg. No. 38,962

Thomas, Kayden, Horstemeyer & Risley, LLP
100 Galleria Pkwy, NW
Suite 1750
Atlanta, GA 30339
770-933-9500